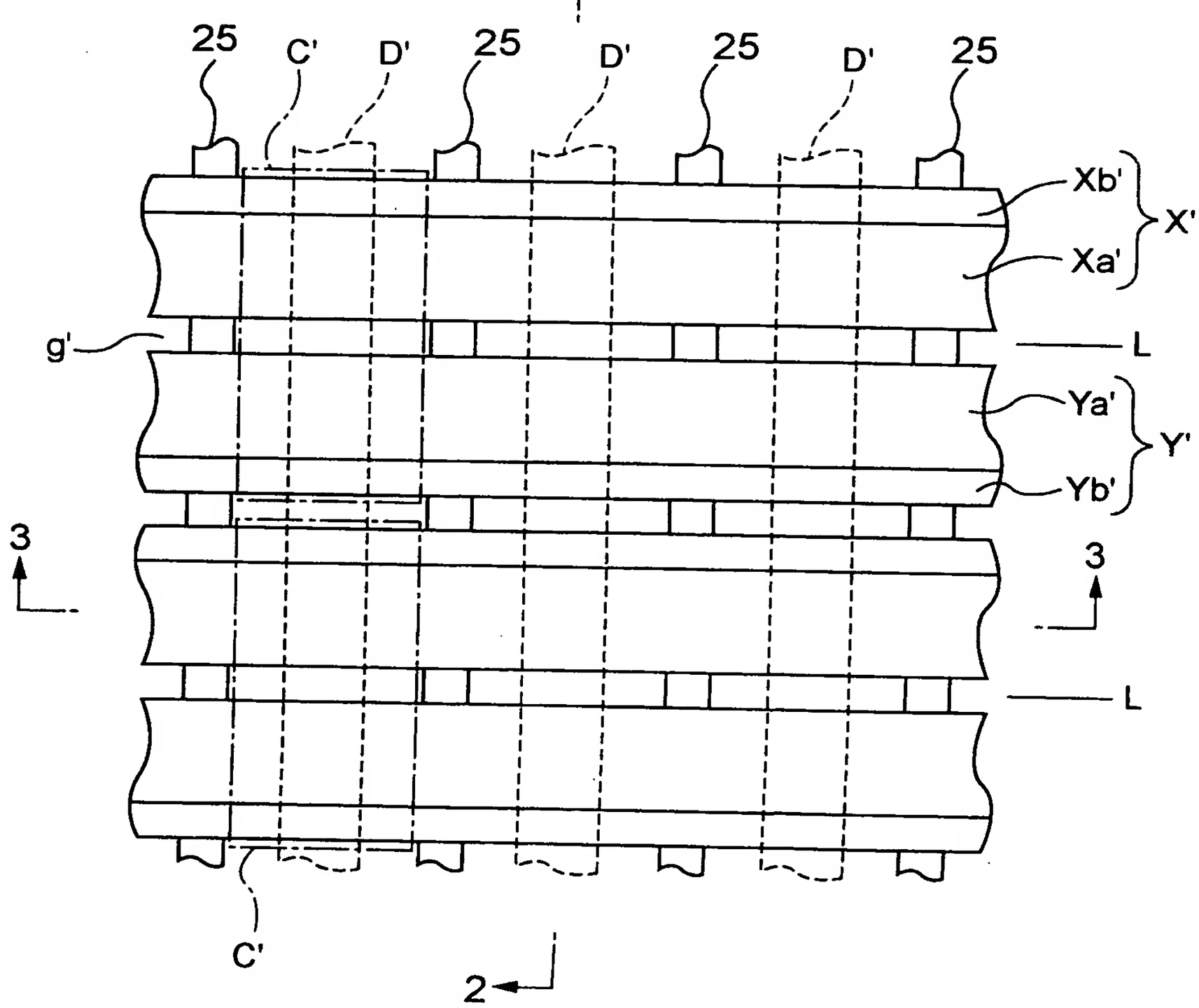
OIPE IAP68
JAN 17 2006
PATENT & TRADEMARK OFFICE

PRIOR ART

FIG. 1



PRIOR ART

FIG. 2

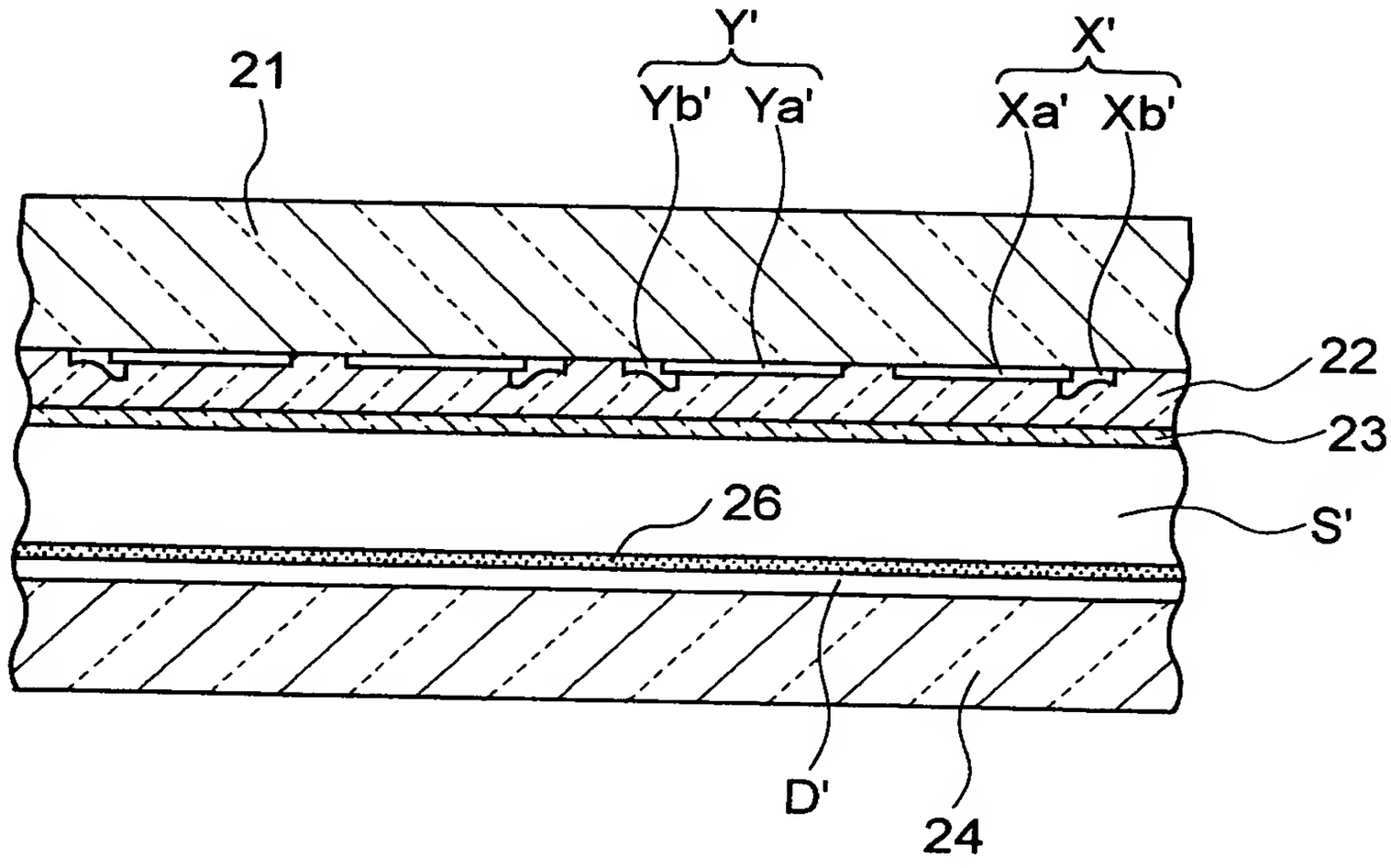


FIG. 3

PRIOR ART

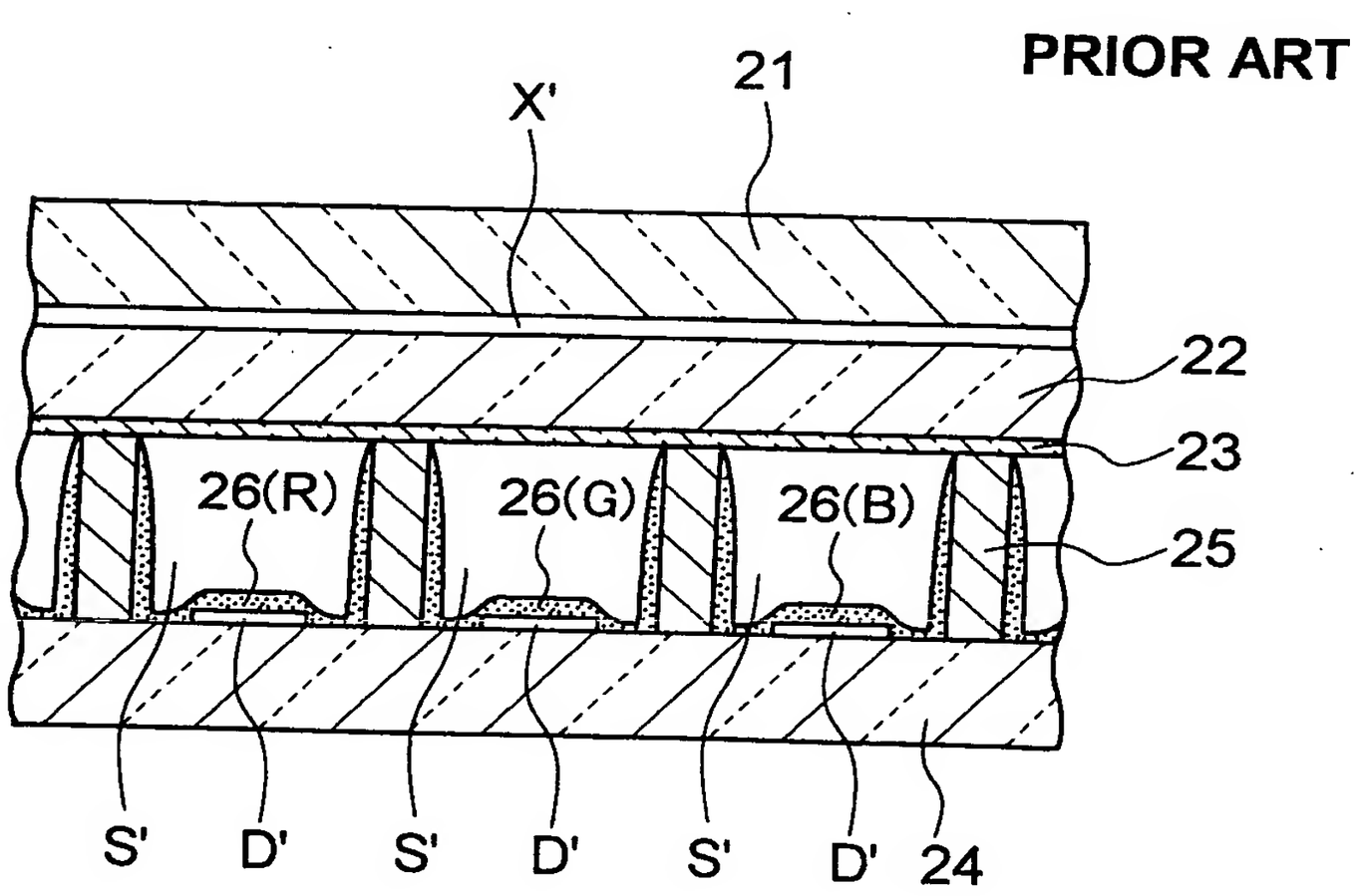


FIG. 4

PRIOR ART

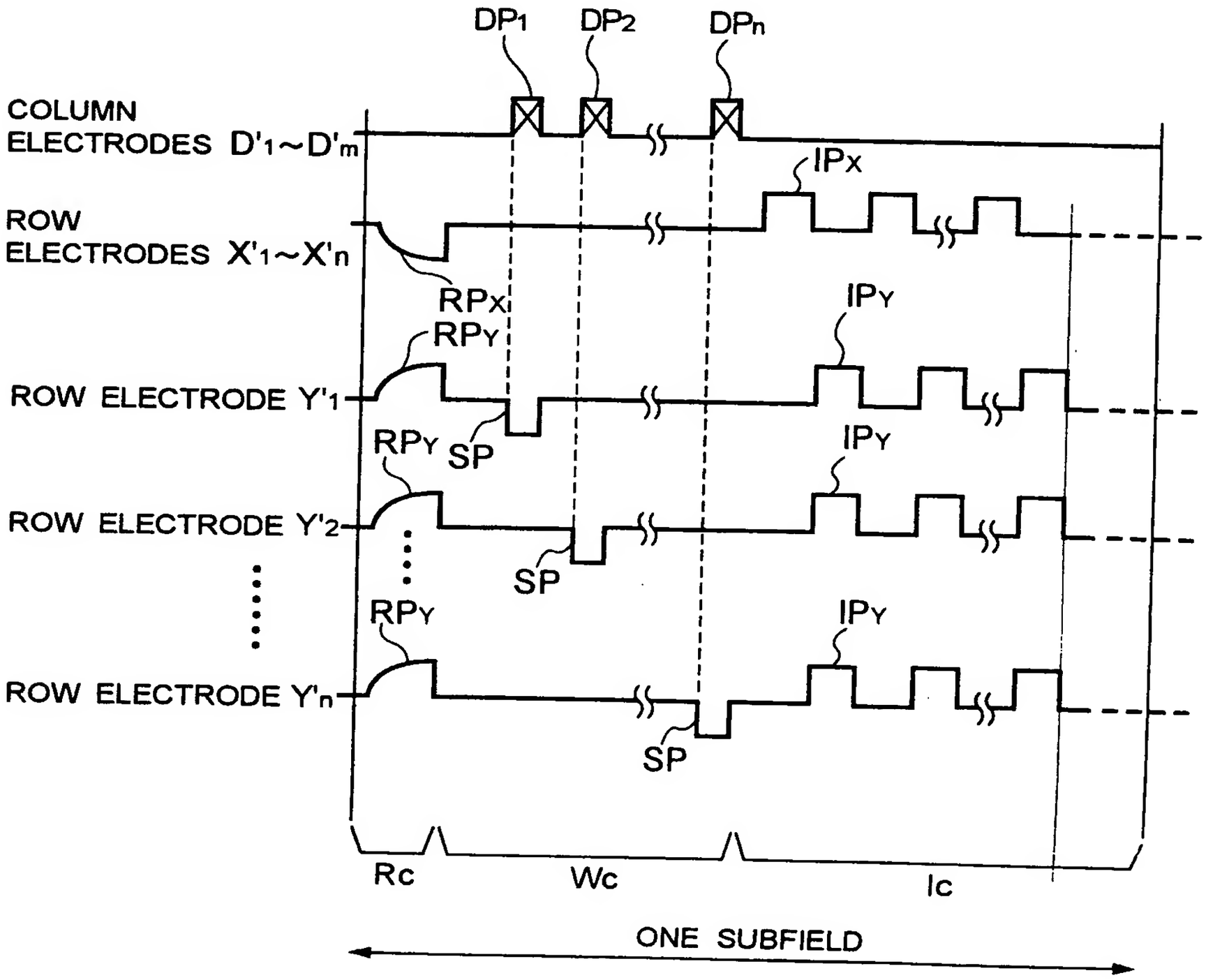


FIG. 5

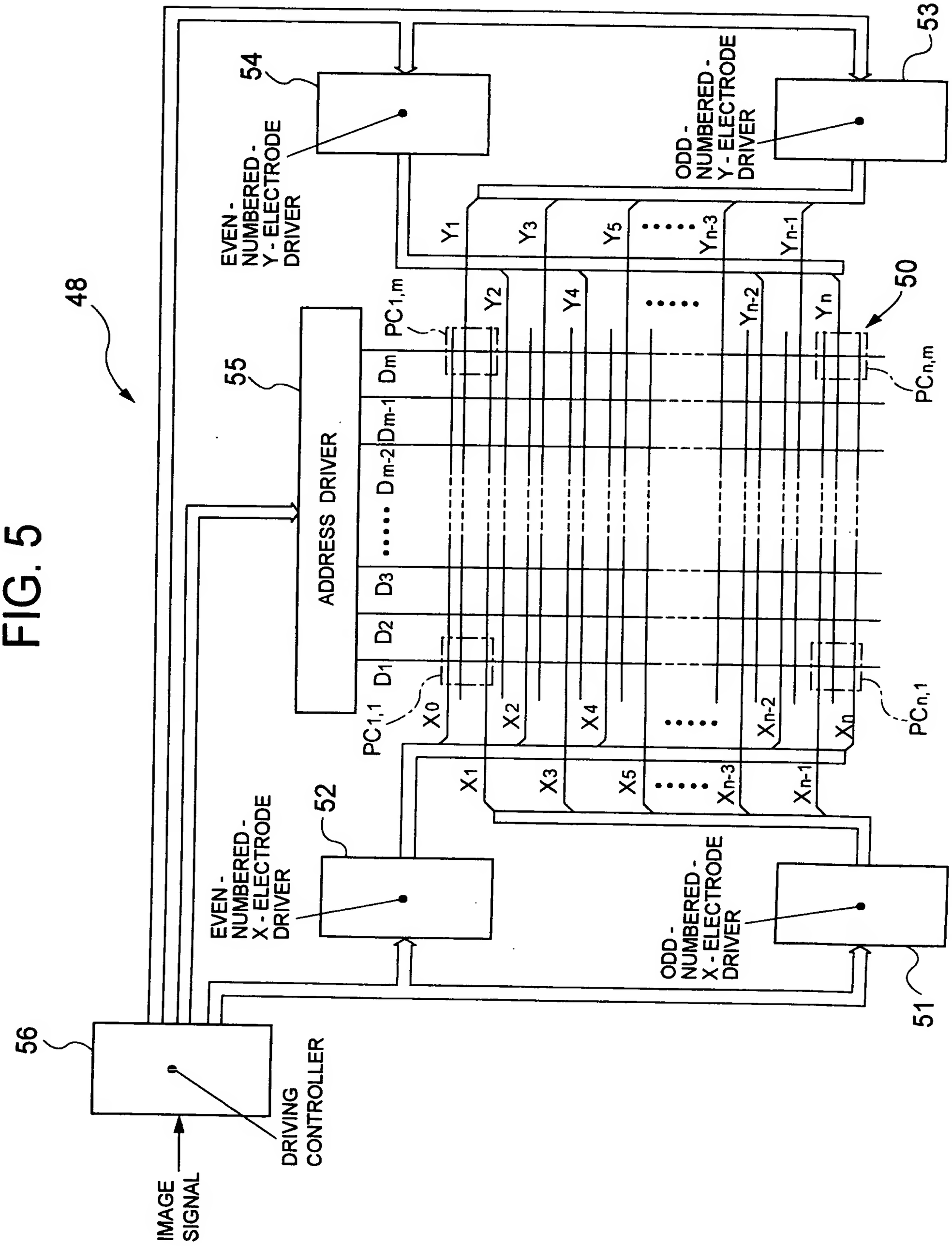

48
53
54
EVEN-NUMBERED-Y-ELECTRODE DRIVER
ODD-NUMBERED-Y-ELECTRODE DRIVER
Y1
Y3
Y5
Yn-3
Yn-1
Y2
Y4
Yn-2
Yn
50
55
ADDRESS DRIVER
D1
D2
D3
Dm-2
Dm-1
Dm
PC1,1
PC1,m
PCn,1
PCn,m
X0
X2
X4
Xn-2
Xn
X1
X3
X5
Xn-3
Xn-1
52
EVEN-NUMBERED-X-ELECTRODE DRIVER
ODD-NUMBERED-X-ELECTRODE DRIVER
51
56
DRIVING CONTROLLER
IMAGE SIGNAL

FIG. 6

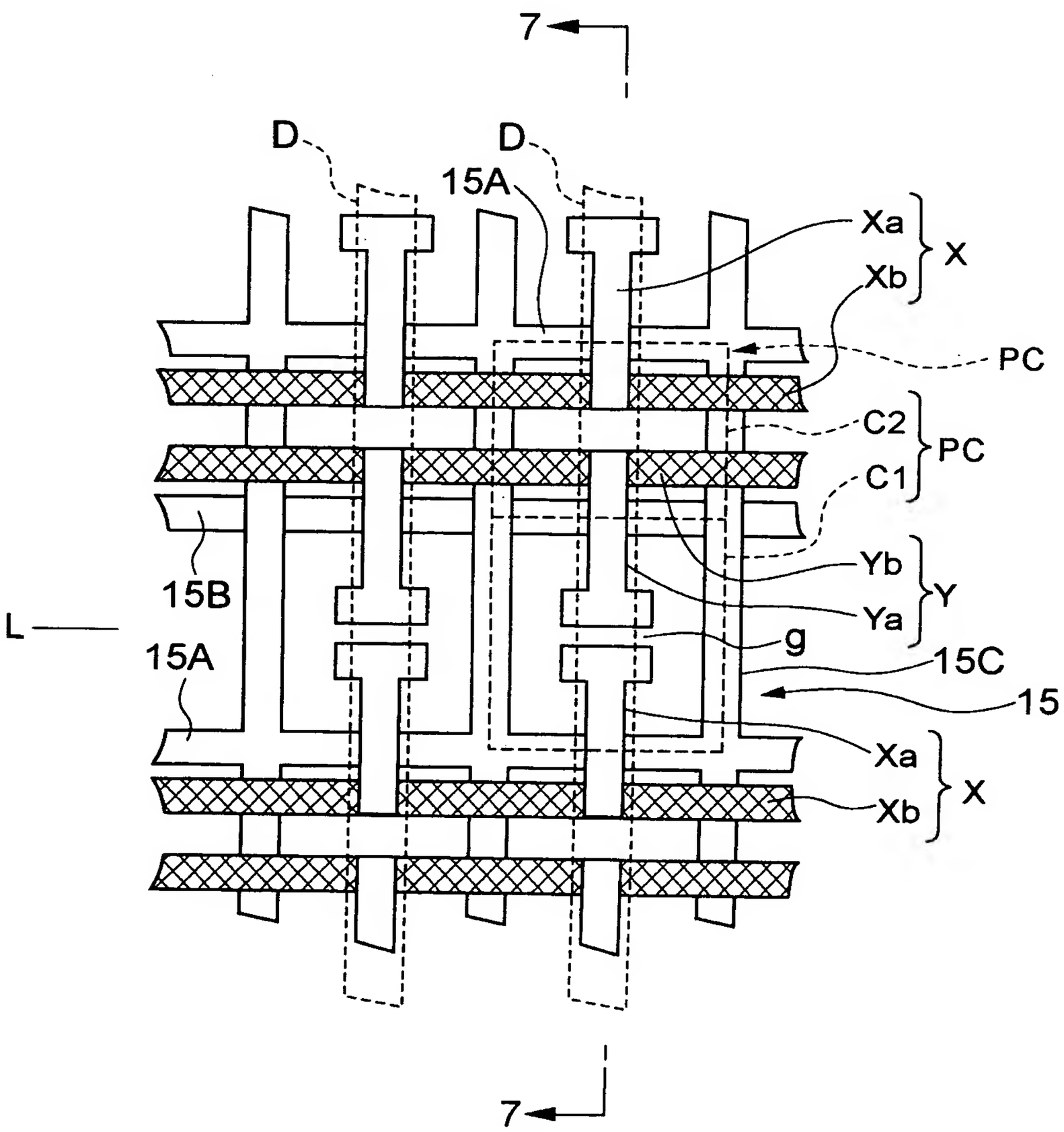


FIG. 7

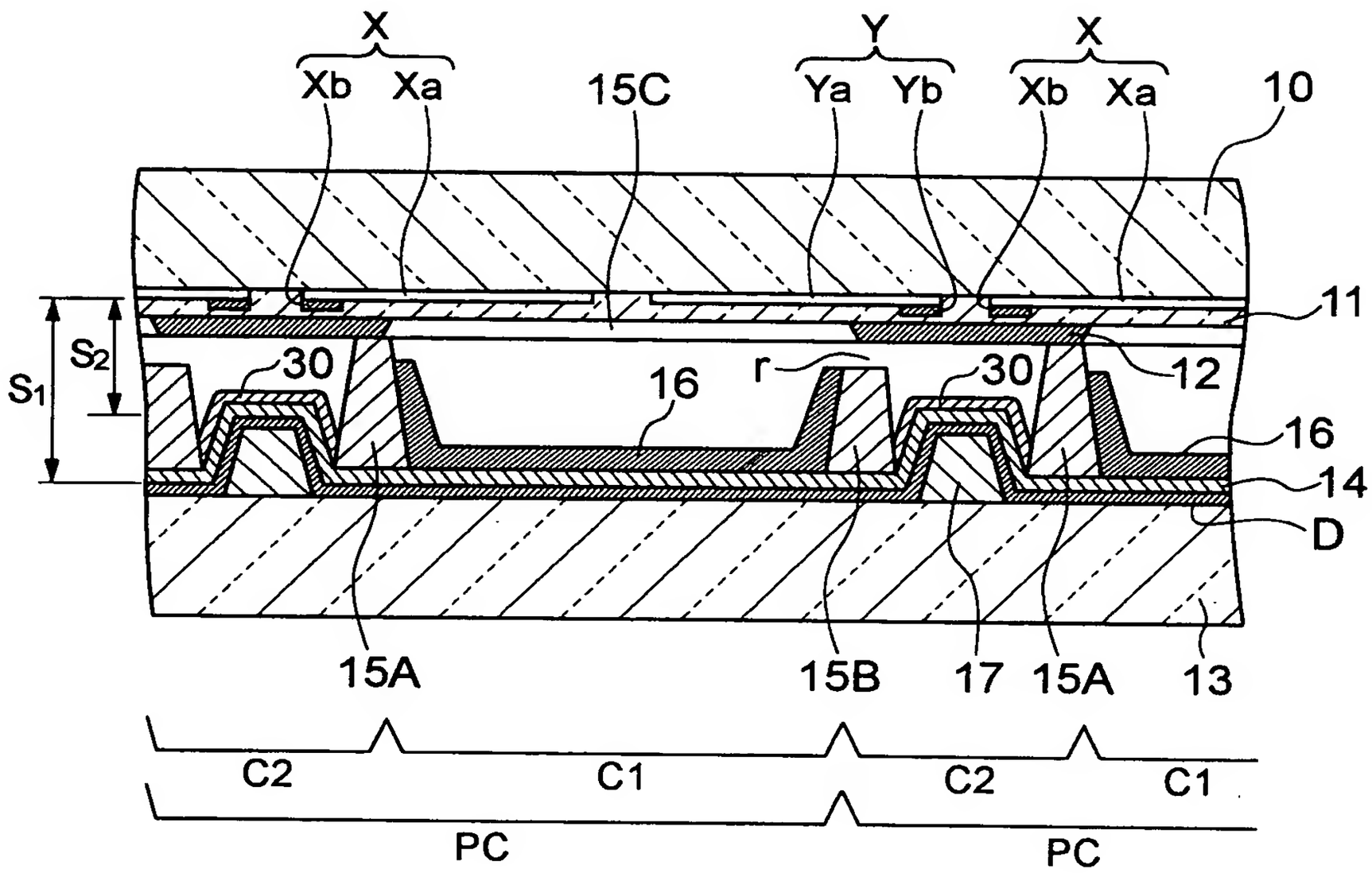

X
Xb
Xa
15C
Y
Ya
Yb
X
Xb
Xa
10
11
S2
S1
30
16
r
30
12
16
14
D
15A
15B
17
15A
13
C2
C1
C2
C1
PC
PC

FIG. 8

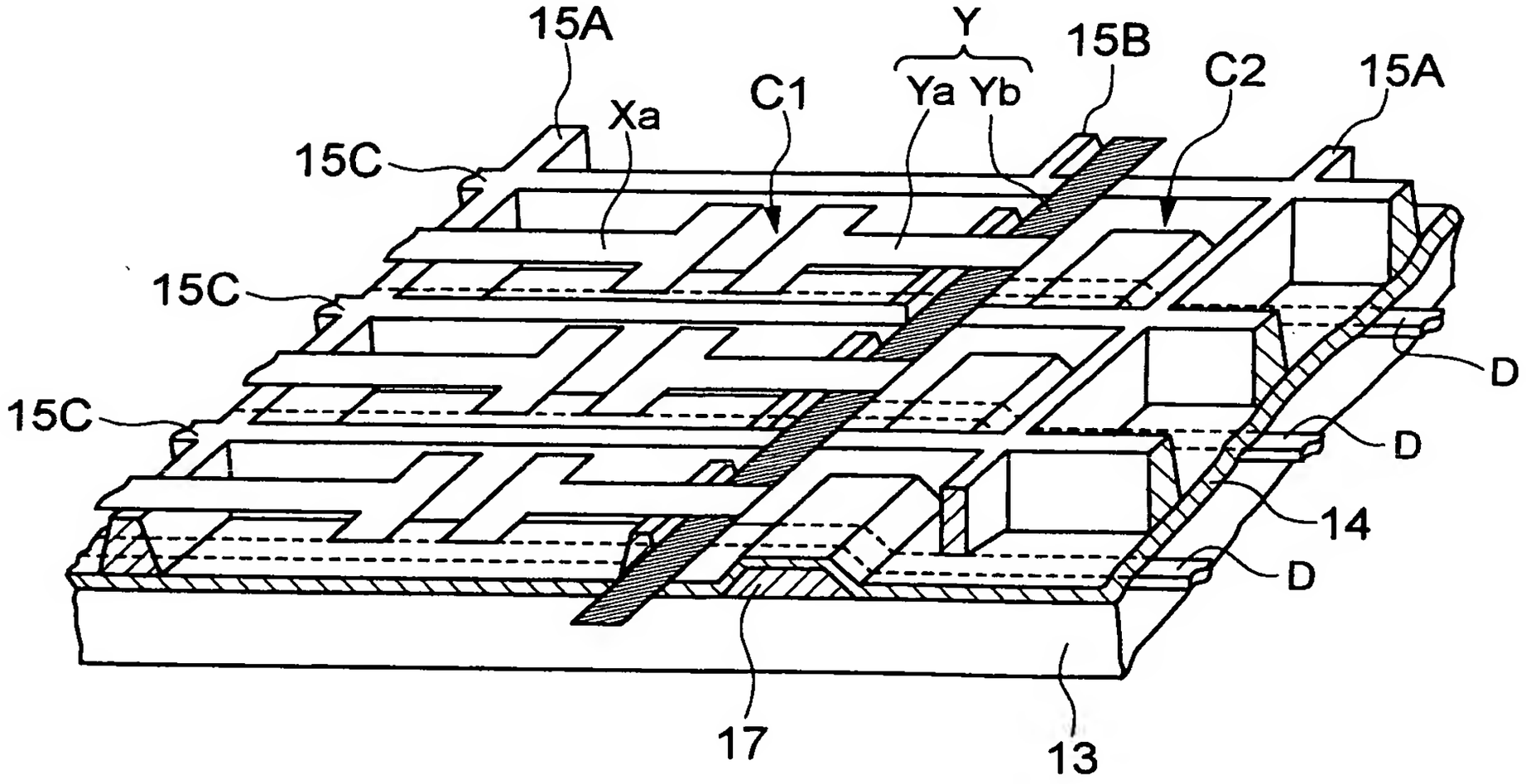

15A
Y
15B
C2
15A
Xa
C1
Ya Yb
15C
15C
15C
D
D
14
D
17
13

FIG. 9

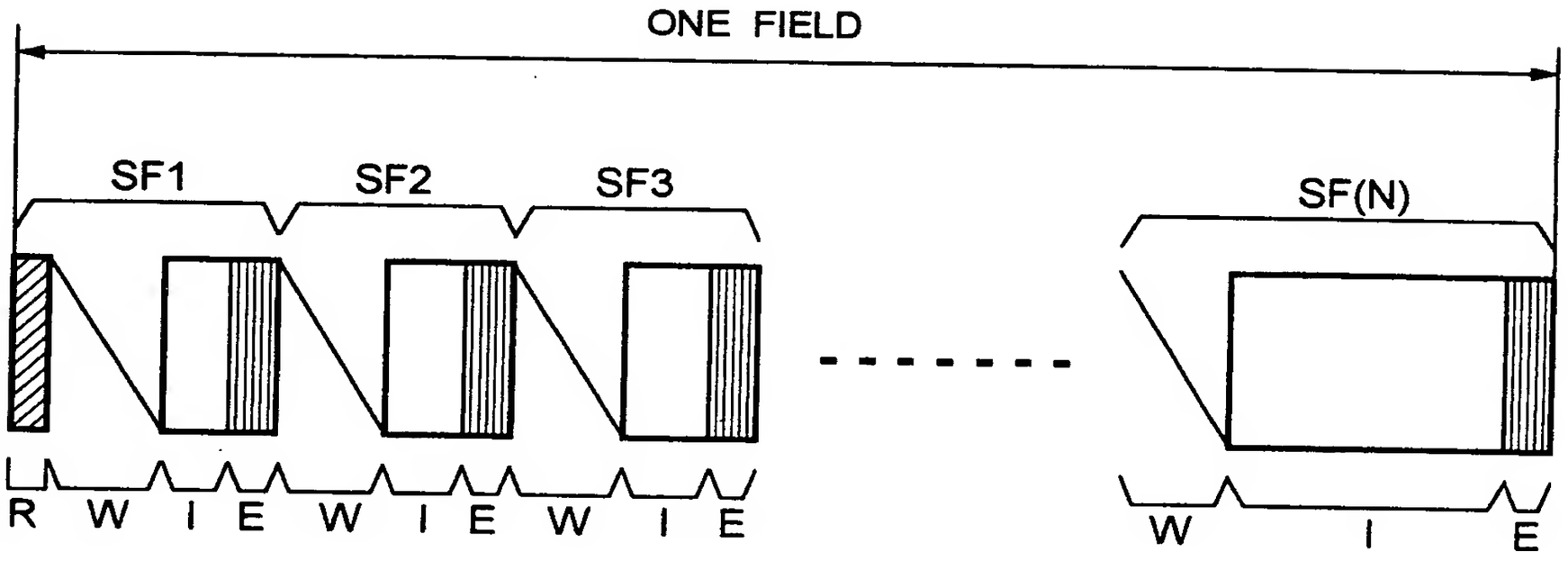


FIG . 10

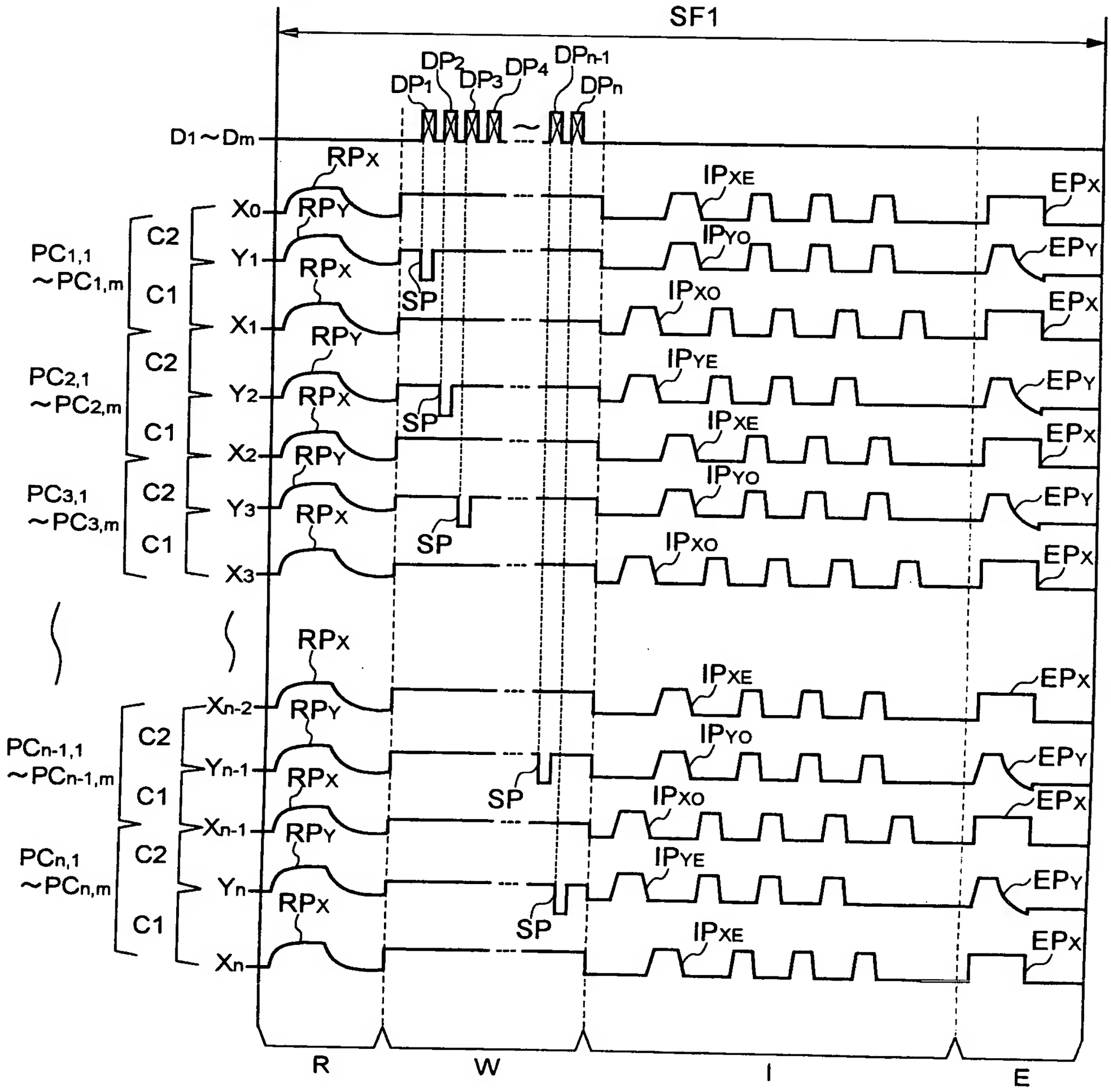

SF1
DP1
DP2
DP3
DP4
DPn-1
DPn
D1~Dm
RPX
RPY
IPXE
IPYO
IPXO
IPYE
EPX
EPY
SP
X0
Y1
X1
Y2
X2
Y3
X3
Xn-2
Yn-1
Xn-1
Yn
Xn
C2
C1
PC1,1 ~PC1,m
PC2,1 ~PC2,m
PC3,1 ~PC3,m
PCn-1,1 ~PCn-1,m
PCn,1 ~PCn,m
R
W
I
E

FIG . 11

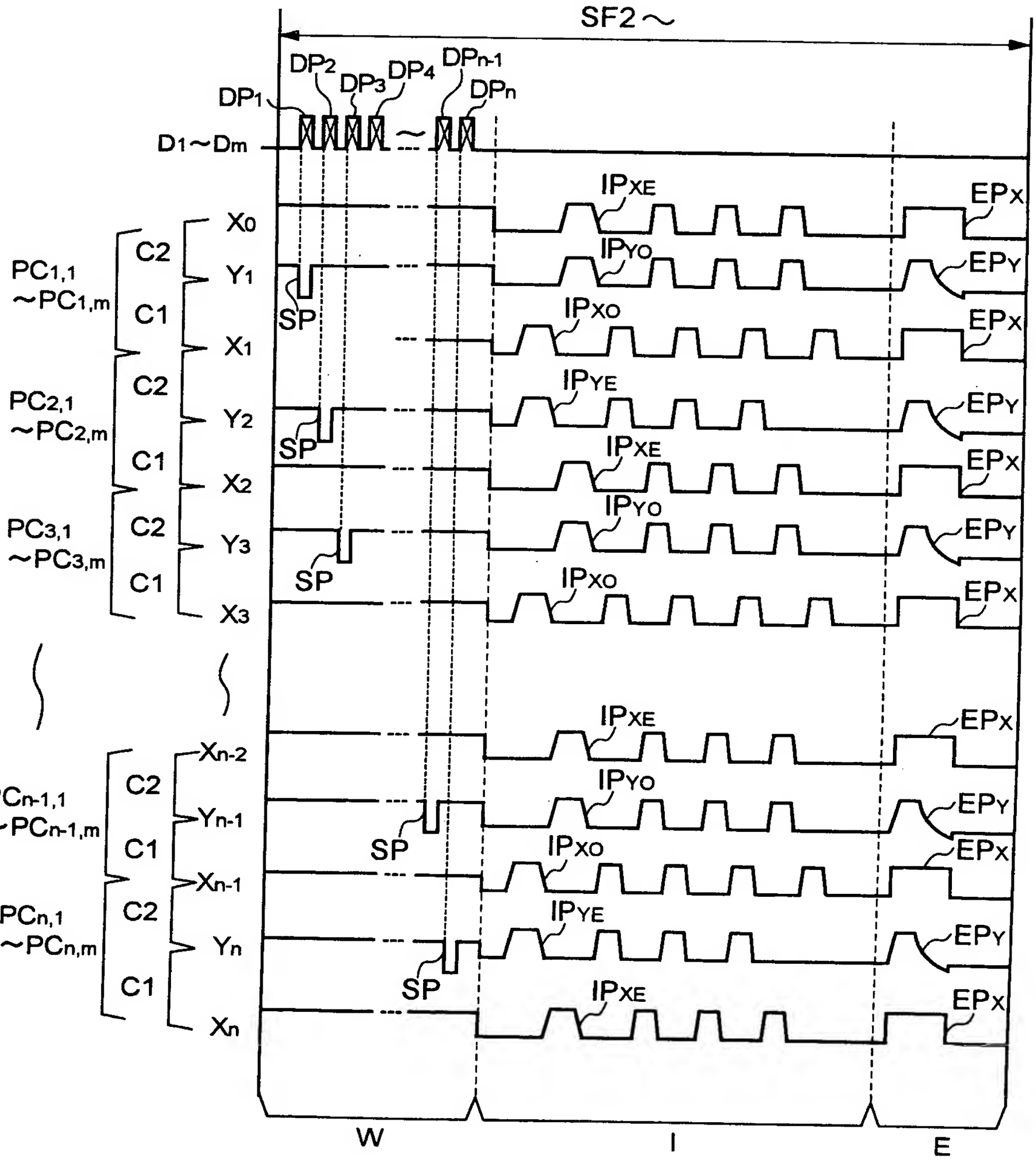

SF2
DP1
DP2
DP3
DP4
DPn-1
DPn
D1~Dm
X0
Y1
X1
Y2
X2
Y3
X3
Xn-2
Yn-1
Xn-1
Yn
Xn
PC1,1 ~PC1,m
PC2,1 ~PC2,m
PC3,1 ~PC3,m
PCn-1,1 ~PCn-1,m
PCn,1 ~PCn,m
C2
C1
SP
IPXE
IPYO
IPXO
IPYE
EPX
EPY
W
I
E

FIG. 12

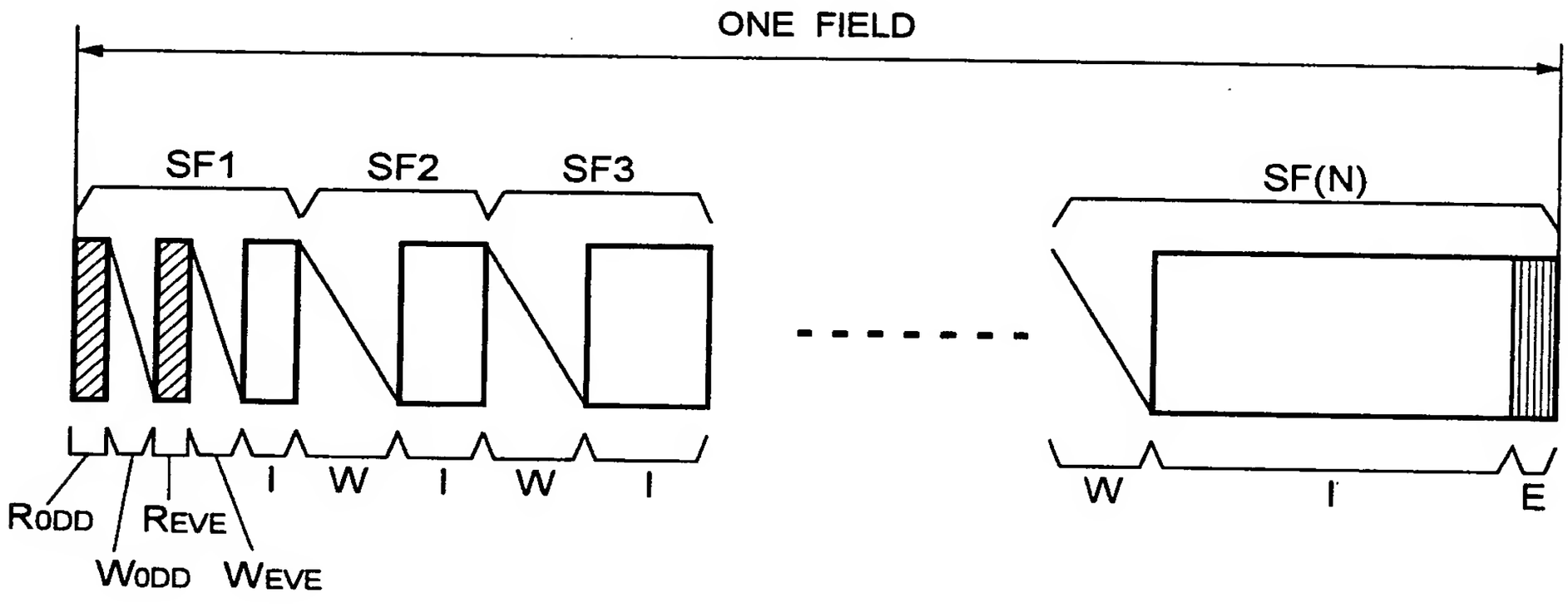


FIG . 13

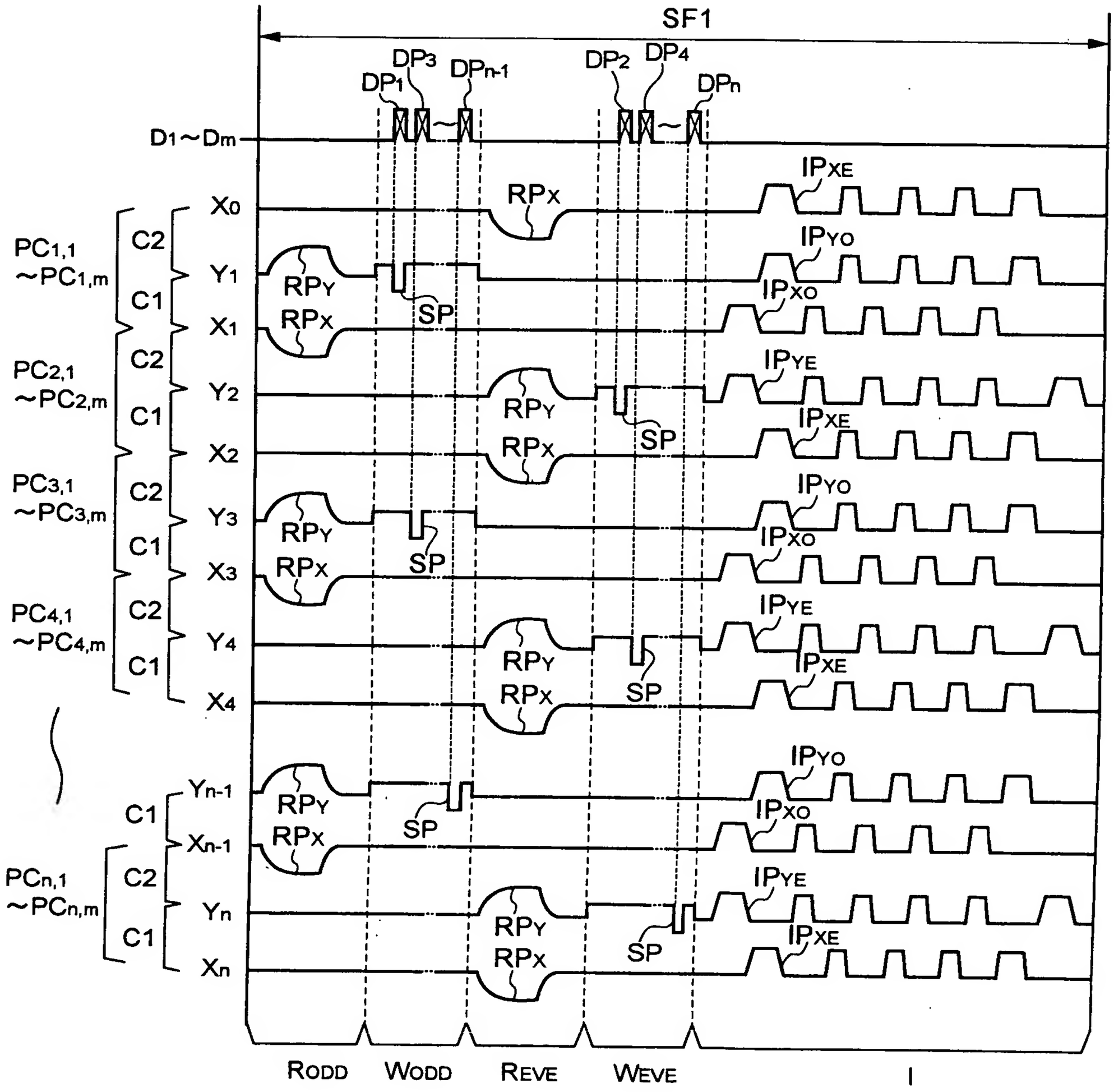

SF1
DP1
DP3
DPn-1
DP2
DP4
DPn
D1~Dm
IPXE
RPX
X0
IPYO
PC1,1
~PC1,m
C2
Y1
C1
RPY
SP
IPXO
RPX
X1
C2
IPYE
PC2,1
~PC2,m
Y2
C1
RPY
SP
IPXE
RPX
X2
C2
IPYO
PC3,1
~PC3,m
Y3
C1
RPY
SP
IPXO
RPX
X3
C2
IPYE
PC4,1
~PC4,m
Y4
C1
RPY
SP
IPXE
RPX
X4
IPYO
Yn-1
C1
RPY
SP
IPXO
RPX
Xn-1
PCn,1
~PCn,m
C2
IPYE
Yn
C1
RPY
SP
IPXE
RPX
Xn
RODD
WODD
REVE
WEVE
I

FIG. 14

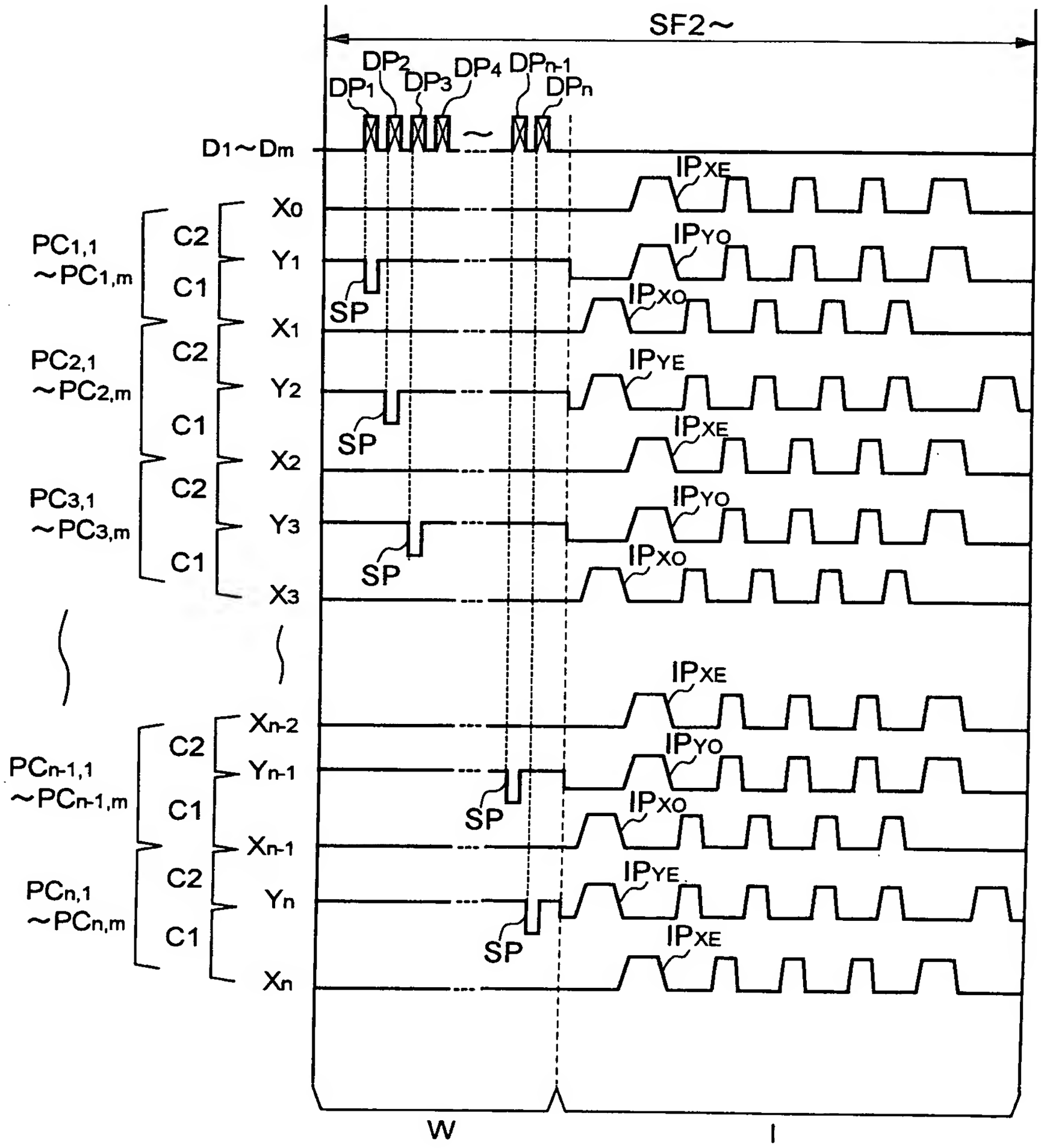

SF2
DP1
DP2
DP3
DP4
DPn-1
DPn
D1~Dm
X0
Y1
X1
Y2
X2
Y3
X3
Xn-2
Yn-1
Xn-1
Yn
Xn
C2
C1
PC1,1 ~PC1,m
PC2,1 ~PC2,m
PC3,1 ~PC3,m
PCn-1,1 ~PCn-1,m
PCn,1 ~PCn,m
SP
IPXE
IPYO
IPXO
IPYE
W
I

FIG. 15

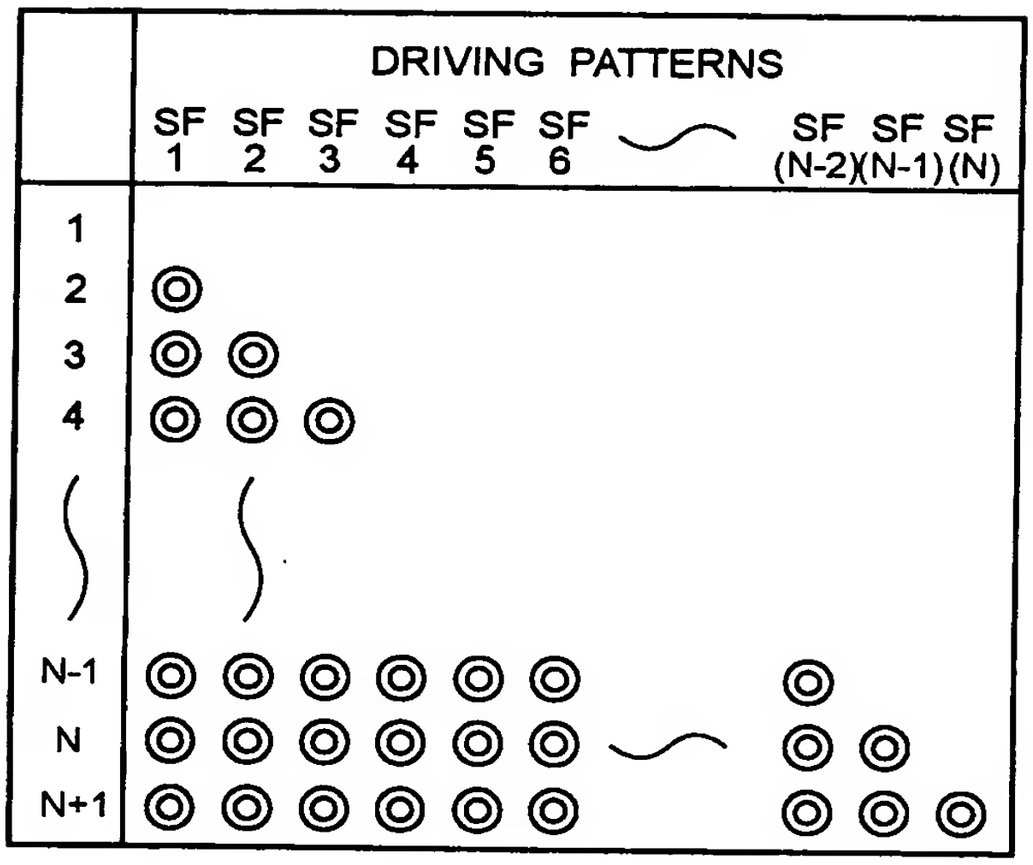
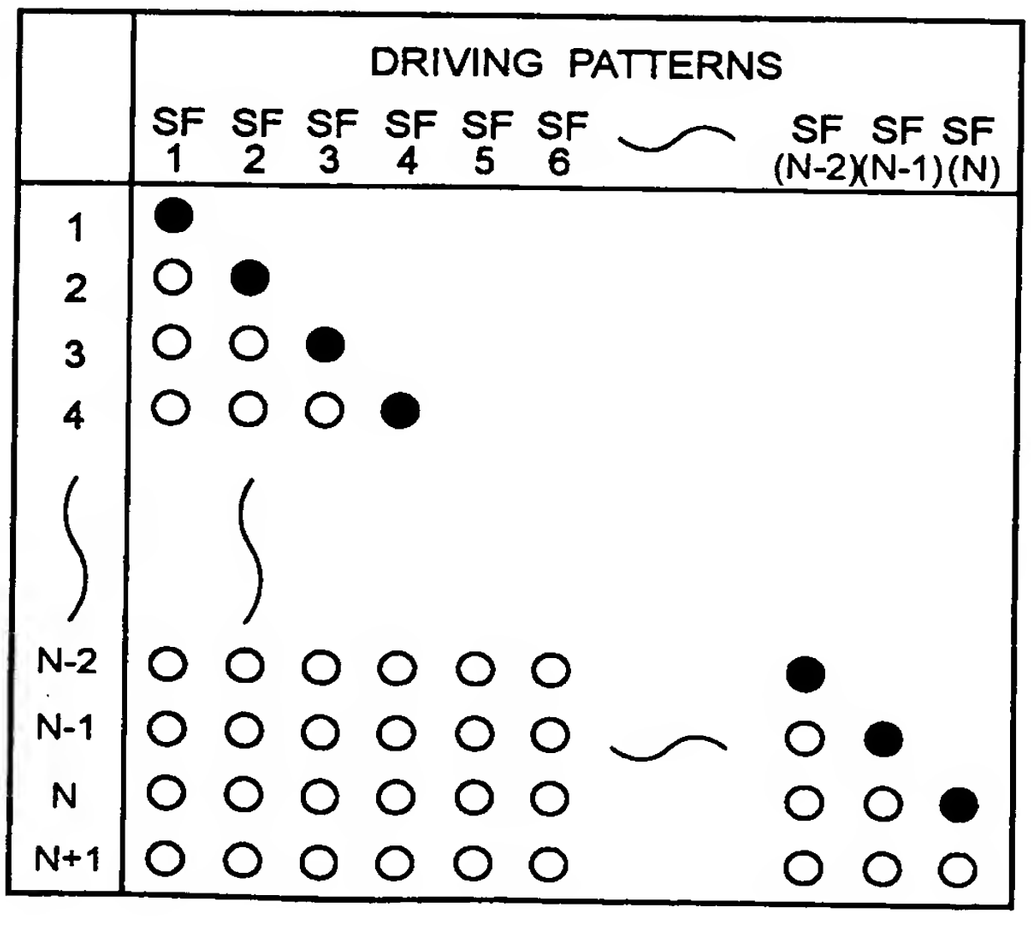

DRIVING PATTERNS
SF 1
SF 2
SF 3
SF 4
SF 5
SF 6
SF (N-2)
SF (N-1)
SF (N)
1
2
3
4
N-1
N
N+1

FIG. 16


DRIVING PATTERNS
SF 1
SF 2
SF 3
SF 4
SF 5
SF 6
SF (N-2)
SF (N-1)
SF (N)
1
2
3
4
N-2
N-1
N
N+1